

**Claims:**

1. A magnetic coupling for transferring electrical energy to or from at least one transducer and at least one measuring circuit, said coupling comprising a first coil of an inductive coupling arrangement connected to said transducer(s) and a second coil of the inductive coupling arrangement connected to said measuring circuit(s).

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2. A magnetic coupling as claimed in claim 1 wherein the first and second coils are enclosed in separate housings, the first housing detachably attached within the second housing.

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3. A magnetic coupling as claimed in claims 1 or 2 wherein the coupling is at the end of a cable connector connected to at least one transducer, the connector including a first housing enclosing the end of the cable, a first coil of an induction coupling arrangement electrically connected to the end of the cable within the housing, and a second housing enclosing a second coil of the inductive coupling arrangement, the housings detachably attached to make the signal coupling.

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4. A magnetic coupling as claimed in claims 2 or 3 wherein the first housing is hermetically sealed.

5. A magnetic coupling as claimed in claims 2, 3 or 4 wherein, the second housing is dimensioned to allow free travel of the first housing to make the signal coupling.

6. A magnetic coupling as claimed in claim 5 wherein first and second housings are held together by suitable frictional or latching means.

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7. A cable connector connected to at least one transducer(s) for a magnetic coupling for transferring electrical energy to or from at least one transducer and at least one measuring circuit, wherein the cable  
5 connector is connected to the transducer(s) at one end thereof, the connector including a first housing enclosing the end of the cable, a first coil of an induction coupling arrangement electrically connected to the end of the cable within the housing, the cable  
10 connector dimensioned to be detachably attached to a second housing enclosing a second coil of the inductive coupling arrangement connected to one or more measuring circuits.